7

## **Claims**

WO 2005/058462

- 1. A process for reclaiming spent selenium filter mass containing an inert material, following take-up of mercury by a substance which contains selenium and is present in the filter mass, **characterised** in that the mass is treated with a hydrogen peroxide solution for leaching out of the selenium content **in** essentially all unspent active substance present in the mass to form selenious acid, in that the resulting selenious acid is separated and isolated for use, in that the mass freed of the solution is treated with aqua regia for dissolving essentially all of the mercury selenide present in it, in that the aqua regia solution with its content of mercury and selenium is separated from the mass and isolated and in that the mercury contained in the solution is precipitated and isolated in deposable form.
- 2. A process according to claim 1, **characterised** in that selenium is selectively separated and obtained from the aqua regia solution after adjustment of its pH value and isolated after precipitation as elemental selenium suitable for production of new filter mass.
- 3. A process according to claim 1 or 2, **characterised** in that the tre-atment with aqua regia is carried out at an elevated temperature.
- 4. A process according to any one of claims 1 to 3, **characterised** in that the mass which is freed of the aqua regia solution and only contains inert carrier material is transferred to production of new selenium filter mass after it has been washed and dried.
- 5. A process according to any one of claims 1 to 4, **characterised** in that the selenious acid formed during the hydrogen peroxide leaching is transferred to production of new selenium filter mass.